

## CLAIMS

What is claimed is:

- 1 1. A method for establishing an overlay network of collaborative conference servers for use in a multi-participant conference, the method comprising:
  - 2 establishing a plurality of collaborative conference servers;
  - 3 connecting at least two of the conference servers directly to at least two separate conference participants; and
  - 4 using each one of the directly connected conference servers to simultaneously
  - 5 provide audio mixing for its directly attached participant.
- 6 2. The method of claim 1, further comprising managing at least two of the conference servers using at least two separate service providers.
- 7 3. The method of claim 1, further comprising establishing a controllable voice packet routing path through the overlay network.
- 1 4. The method of claim 3, wherein the step of establishing a controllable voice packet routing path further comprises connecting once and only once to every conference server that is directly attached to a participant.
- 2 5. The method of claim 3, wherein the step of establishing a controllable voice packet routing path further comprises directing all of the voice data packets through the overlay network.
- 3 6. The method of claim 3, further comprising dynamically modifying the voice routing path during the multi-participant conference including transferring one or more participants from a first conference server to a second conference server,

4 adding one or more conference servers to the overlay network and removing one  
5 or more existing conference servers from the overlay network.

1 7. The method of claim 1, further comprising setting the output from one of the  
2 connected conference servers to the connected participant equal to the sum of all  
3 inputs to that connected conference server except an input associated with that  
4 connected participant.

1 8. The method of claim 1, wherein the step of establishing a plurality of conference  
2 servers comprises:  
3 identifying an available set of conference servers;  
4 communicating an internet protocol address and a path delay time for each one of  
5 the conference servers among the connected conference participants;  
6 communicating the addresses and delay times of conference servers from each  
7 participant to its directly connected conference server.

1 9. The method of claim 1, wherein the step of connecting at least two of the  
2 conference servers directly to at least two separate conference participants further  
3 comprises:  
4 associating a first conference server with a contact number associated with the  
5 multi-participant conference;  
6 connecting a first and second conference participant to the first conference server  
7 using the contact number;  
8 using the first conference server to identify a second conference server;  
9 transferring the second conference participant to the second conference server.

1 10. A computer readable medium containing a computer executable code that when  
2 read by a computer causes the computer to perform method for establishing an

3       overlay network of collaborative conference servers for use in a multi-participant  
4       conference, the method comprising:  
5             establishing a plurality of collaborative conference servers;  
6             connecting at least two of the conference servers directly to at least two separate  
7             conference participants; and  
8             using each one of the directly connected conference servers to simultaneously  
9             provide audio mixing for its directly attached participant.

- 1     11. The computer readable medium of claim 10, wherein the method further  
2       comprises managing at least two of the conference servers using at least two  
3       separate service providers.
- 1     12. The computer readable medium of claim 10, wherein the method further  
2       comprises establishing a controllable voice packet routing path through the  
3       overlay network.
- 1     13. The computer readable medium of claim 12, wherein the step of establishing a  
2       controllable voice packet routing path further comprises connecting once and only  
3       once to every conference server that is directly attached to a participant.
- 1     14. The computer readable medium of claim 12, wherein the step of establishing a  
2       controllable voice packet routing path further comprises directing all of the voice  
3       data packets through the overlay network.
- 1     15. The computer readable medium of claim 12, wherein the method further  
2       comprises dynamically modifying the voice routing path during the multi-  
3       participant conference including transferring one or more participants from a first  
4       conference server to a second conference server, adding one or more conference

- 5        servers to the overlay network and removing one or more existing conference  
6        servers from the overlay network.
- 1    16. The computer readable medium of claim 10, wherein the method further  
2        comprises setting the output from one of the connected conference servers to the  
3        connected participant equal to the sum of all inputs to that connected conference  
4        server except an input associated with that connected participant.
- 1    17. The computer readable medium of claim 10, wherein the step of establishing a  
2        plurality of conference servers comprises:  
3            identifying an available set of conference servers;  
4            communicating an internet protocol address and a path delay time for each one of  
5            the conference servers among the connected conference participants;  
6            communicating the addresses and delay times of conference servers from each  
7            participant to its directly connected conference server.
- 1    18. The computer readable medium of claim 10, wherein the step of connecting at  
2        least two of the conference servers directly to at least two separate conference  
3        participants further comprises:  
4            associating a first conference server with a contact number associated with the  
5            multi-participant conference;  
6            connecting a first and second conference participant to the first conference server  
7            using the contact number;  
8            using the first conference server to identify a second conference server;  
9            transferring the second conference participant to the second conference server.
- 1    19. The computer readable medium of claim 10, wherein the step of establishing a  
2        plurality of collaborative conference servers further comprises establishing a  
3        plurality of collaborative session initiation protocol conference servers.

- 1    20. A system for providing multi-participant conferencing, the system comprising  
2    an overlay network of conference servers arranged to collaboratively host the  
3    multi-party conference, the overlay network comprising a plurality of conference  
4    servers, each conference server directly attached to at least one conference  
5    participant and arranged to supply audio mixing for the directly attached  
6    participant, wherein all of the conference servers provide audio mixing for  
7    directly attached participants simultaneously.